

On behalf of:



Federal Ministry
for the Environment, Climate Action,
Nature Conservation and Nuclear Safety



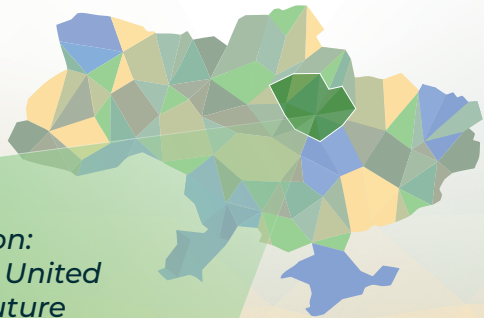
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Transformation of Waste Management:

The Success Story of Poltava Communities

*From Problem to Solution:
How Four Communities United
for an Environmental Future*



The document “Transforming Waste Management: A Success Story of the Poltava Region Communities” was developed within the framework of the Global Project “Environmental Protection Worldwide,” implemented in Ukraine by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the Federal Ministry for the Environment, Climate Action, Nature Conservation and Nuclear Safety (BMUKN) under the Export Initiative Environmental Protection.

The information and views expressed in this document are those of the authors and do not necessarily reflect the views of the German Government or the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

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*From Problem to Solution:
How Four Communities United for an
Environmentally Sustainable Future*

2025

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FOREWORD



Successful inter-municipal cooperation is not only about infrastructure — it is about people who believe that together they can achieve more



*Oleksandr Vasylenko,
Head of the Chornukhynska Community*



Signing of the Memorandum of Cooperation between
the Participating Communities

Today, as Ukrainian cities and towns strive to provide higher-quality services for their residents, the stories of real projects demonstrating effective ways to solve shared challenges have become especially valuable. The Pyriatyn Waste Management Subcluster in Poltava Region has become an example of such successful synergy — a place where four communities united their efforts to jointly transform the waste-management system.

With the support of the “Environmental Protection Worldwide” project and the continuation of this initiative under the “Environmental Protection Worldwide” programme implemented by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, the communities brought to life an ambitious plan to introduce separate waste collection and build the necessary infrastructure.

FROM THEORY TO PRACTICE: THE STORY OF COOPERATION BETWEEN FOUR COMMUNITIES OF POLTAVA REGION

Summer 2021. Poltava Region.

At first glance, it is a picturesque area of fertile land and generous people. Yet behind the beauty lies a problem invisible to tourists: almost 98% of all municipal waste ends up in landfills, most of which do not meet modern environmental standards.

Location:
northwest
Poltava region



In four communities of Poltava Region — Novoorzhytska, Pyriatynska, Hrebinkivska and Chornukhynska — this problem had reached a critical point. Landfills were overflowing, infrastructure for recycling was absent, and

illegal dumpsites continued to appear in forests and along roadsides. The six-hectare landfill in Pyriatyn was nearing full capacity. Only 50–55% of the population in these communities had access to municipal waste collection services.

“

This was not just an environmental issue — it was a crisis affecting the quality of life of every resident, from drinking water safety to air quality,

”

project participants recall

But that year, something happened that changed the development trajectory of these communities. The international technical assistance project “Environmental Protection Worldwide” became the catalyst for far-reaching changes that later formed Ukraine’s first example of inter-municipal cooperation in waste management.

Four Communities — One Challenge

Four communities, each with its own specific features and difficulties, yet all facing the same urgent problem — a critical situation in waste management.





Composition:

City of Pyriatyn 17 starosta (local administrative) districts

Area: 923.3 km²

Population:

~29,700 people (32 people/km²), with urban and rural populations nearly equal

Features:

Over 15 nature conservation sites, including a national park

Economy:

Agricultural sector, processing industry (LLC "Pyriatyn Cheese Factory")



HREBINKIVSKA
COMMUNITY

Composition:

City of Hrebinka 42 settlements

Area: 584 km²

Population:

~21,003 people (35 people/km²), approx. 50% in the city, the rest in villages with uneven development

Features:

Forest-steppe zone, over 500 hectares of protected natural areas

Economy:

Well-developed agriculture



NOVOORYZHYTSKA
COMMUNITY

Composition:

Urban-type settlement Novooryzhytske 31 settlement

Area: 456.4 km²

Population:

~9,205 people (20 people/km²), over 80% are rural residents

Nature:

3 locally significant nature reserves (floodplain natural complexes)

Economy:

Agricultural sector, seasonal sugar production



CHORNUKHYNKA
COMMUNITY

Composition:

Urban-type settlement Chornukhy 36 villages (7 starosta districts)

Area: 512.6 km²

Population:

~9,500 people (18.5 people/km²), over 75% live in villages

Nature:

7 protected natural sites, over 2,000 hectares

Economy:

Cultivation of grain and industrial crops, gas extraction

The problems that united all four communities went far beyond the usual notion of “waste”:

- **Economic burden.** The inefficient waste system drained community budgets without delivering meaningful results..
- **Infrastructure collapse.** Outdated machinery and equipment could no longer cope with increasing waste volumes.

“

We realized that this problem could not be solved alone. It was like a puzzle — each community had one piece of the solution, but only by putting them together could we see the whole picture

”

*Taras Zhuravel,
Project Manager in Ukraine*

This is how the idea was born — to join forces. Not just to talk, but to act. And the first step became possible thanks to a project that helped the communities see the real potential of cooperation.

Key Achievements of the Project

Phase 1: Analysis and Planning (2020–2022)

With the support of the Global Project “Support of the Export Initiative for Environmental Technologies” implemented by GIZ, the following activities were carried out:



- A comprehensive assessment of the existing waste-management situation in each community
- An inventory of illegal dumpsites across the target communities
- Development of a draft Regional Waste Management Plan
- Development of Local Waste Management Plans for all four communities
- Creation of a Roadmap for the elimination and remediation of illegal dumpsites
- Signing of an inter-municipal cooperation agreement to establish the joint municipal enterprise “Ecoservice-2022” for the development of a unified waste-management system

“

When we first gathered together with representatives of all communities, we felt both great responsibility and hope. We understood that cooperation was the only path to success in such an ambitious undertaking

”

*Mykhailo Melnychenko,
Deputy Head of the Pyriatyn Community*

Phase 2: Practical Implementation (2022–2025)

The main achievement of the second phase was the establishment of the joint municipal enterprise “Ecoservice-2022”, which became the operational hub for implementing the developed plans.

Key results achieved:



- Procurement of modern equipment for waste collection and transportation, including specialized containers for separate collection
- Launch of a separate waste-collection system across all four communities, covering more than 50% of the population
- Installation of a mobile sorting line for the Pyriatyn subcluster
- Provision of expert support in developing a reconstruction plan for the existing landfill in line with European standards
- Development of a concept for bio-waste composting
- Implementation of public awareness and educational activities for residents

THE STORY OF COOPERATION: FROM CHALLENGES TO RESULTS

In today's context, efficient waste management has become one of the key challenges for local self-government, especially in small communities with limited financial and technical resources. Recognizing the scale of the problem, the Pyriatyn, Hrebinka, Novoorzhytske and Chornukhy territorial communities of Poltava Region made a strategic decision — to unite their efforts through inter-municipal cooperation and establish a joint infrastructure entity, the municipal enterprise “Ecoservice-2022.” Its mission is to ensure the provision of high-quality solid-waste management services across all four communities.

The catalyst for this decision was the difficult condition of existing equipment and infrastructure. An inventory revealed that the average wear level of municipal machinery ranged from 62% to 73%. Waste collection trucks manufactured in 2008–2011 were operating at the limits of their technical capacity, with some units reaching up to 94% wear and requiring major repairs.

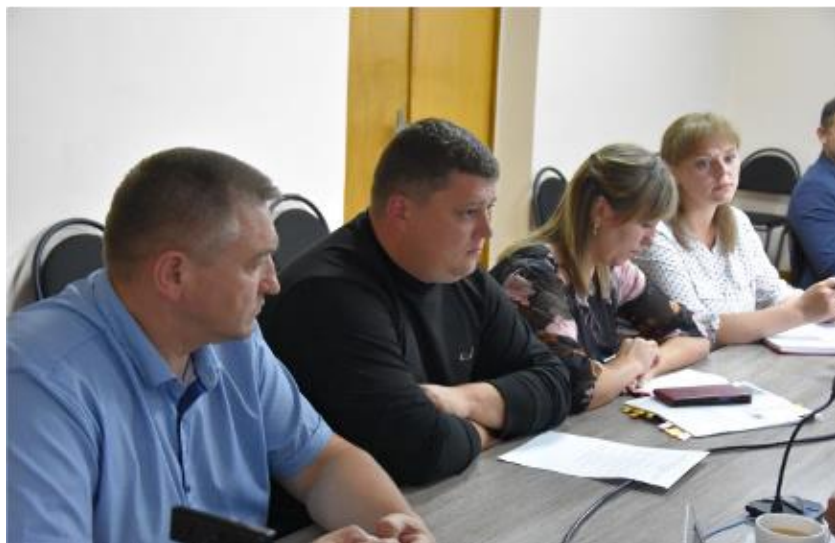
Metal containers were in critical condition, and most rural settlements had no waste collection services at all.

“

The problems our communities faced required not isolated actions but a comprehensive, systemic approach. That is why inter-municipal cooperation became not just an opportunity, but an urgent necessity

”

*Oleksandr Vasylenko,
Head of the Chornukhy Territorial Community*



First meeting of community representatives to discuss cooperation

KEY STAGES IN ESTABLISHING COOPERATION

The creation of a joint waste-management system took place in several phases:

-
- 2020 1 Analysis of the current situation and development of a shared vision**
 - Technical assessments and studies conducted by GIZ
 - Identification of community needs and opportunities for cooperation
 - 2021 2 Formation of the legal and organizational framework**
 - Establishment of a working group with representatives from all four communities
 - Development of a cooperation roadmap
 - 2022 3 Institutionalization of cooperation**
 - Signing of the Memorandum of Cooperation (July 2022)
 - Establishment of the joint municipal enterprise “Ecoservice-2022” (November 2022)
 - 2023 4 Start of active implementation**
 - Procurement of equipment and development of infrastructure for separate waste collection
 - Official opening of Ecoservice-2022 (May 19, 2023)

FROM MEMORANDUM TO LEGAL FORMALIZATION

13 July 2022 marked the starting point of the cooperation process. On this day, the Mayor of Pyriatyn signed Order No. 111 “On initiating cooperation between territorial communities,” which established the legal basis for further actions. This was the first official step toward uniting efforts.

On 27 July 2022, during a regular session, the Pyriatyn City Council adopted Decision No. 247 “On granting consent for cooperation.” This decision confirmed the community’s readiness to work together and use resources efficiently to achieve a shared goal.

In August 2022, an active negotiation phase began. Representatives of the Pyriatyn community sent official letters inviting cooperation to the Hrebinka, Novoorzhyske and Chornukhy communities. At the same time, public consultations were held to inform residents about the intention to establish a joint enterprise and how budget funds would be used.

“

There was a lot of scepticism. People asked: ‘Why should we pay for waste collected in a neighbouring community?’ It was important to explain that cooperation is not a luxury but an urgent necessity that will ultimately save money and improve the environmental situation for everyone

”

*Andrii Simonov,
Head of the Pyriatyn Community*

On 12 October 2022, a Commission was established to prepare the draft cooperation agreement, and its composition was approved through a joint order of all four communities. This marked the transition from dialogue to concrete legal work.

In October–November 2022, all four communities adopted decisions at their council sessions approving the draft cooperation agreement and establishing the joint municipal enterprise “Ecoservice-2022.” Each community allocated funds to the enterprise’s statutory capital.

On 15 November 2022, the Heads of all four communities signed the inter-municipal cooperation agreement and the Statute of the newly created municipal enterprise — a historic milestone that marked the birth of a new approach to waste management in the region.

On 17 November 2022, the cooperation agreement was officially registered with the Ministry for Communities and Territories Development of Ukraine under No. 887 in the Register of Cooperation Agreements of Territorial Communities.

SECRETS OF SUCCESSFUL PARTNERSHIP (OR “HOW THE COOPERATION WORKED IN PRACTICE”)

The creation of “Ecoservice-2022” is only the visible part of the story. Behind it lies extensive and meticulous work to develop effective mechanisms of cooperation among the communities. What made collaboration possible in a context where each community traditionally focused on its own interests?

- **Fair cost-sharing.** Funding for the joint enterprise is distributed proportionally to population size: Pyriatyn — 42%, Hrebinka — 30%, Chornukhy — 14%, Novoorzhytske — 14%. This ensures a balanced and equitable financial contribution.

- **Transparency.** Decisions are made according to the principle “one community — one vote.” Resolutions are adopted by simple majority; if votes are split evenly, the decision is not approved. This ensures equal representation regardless of community size.
- **Clear responsibility.** Pyriatyn City Council serves as the entity responsible for submitting reports on the implementation of the cooperation agreement, ensuring proper monitoring and accountability.
- **Shared vision.** Despite different starting conditions, all four communities are united by a common goal: to build a modern, efficient and environmentally safe waste-management system.
- **Expert support.** The international technical assistance project provided not only financial resources but also expert guidance, helping communities avoid typical mistakes and adopt best European practices.

“

We realised a simple truth: clean environment has no administrative borders. If groundwater becomes polluted in a neighbouring community, sooner or later it will affect us as well. So either we solve this problem together, or we do not solve it at all

”

*Iryna Yashchyk,
Environmental Specialist at Ecoservice-2022
— a message that guided all discussions*

CHALLENGES AND HOW THEY WERE OVERCOME

The path toward establishing the joint enterprise was not easy. The communities encountered several key challenges:

Public scepticism. Many residents doubted that the new system would be more effective than the old one. To address these concerns, extensive public consultations were held, allowing citizens to voice their questions and receive clear, detailed explanations.

Different starting conditions. Each community had a different level of infrastructure and varying degrees of waste-management development. For example, Chornukhy and Pyriatyn communities already had experience with separate waste collection, while others were only beginning this journey. This required a tailored approach to each community within the common project framework.

Logistical difficulties. Large distances between settlements and processing points demanded careful route planning and cost optimization for transportation. Project experts supported the communities in developing efficient logistical schemes.

Financial constraints. With limited budgets, allocating funds for a new initiative was challenging. However, understanding the long-term benefits — combined with support from the international technical assistance project — helped overcome this barrier.

“

The hardest part was changing the mindset — both for local authorities and residents. We were used to thinking in categories of ‘my village,’ ‘my community.’ Here, we had to think broader, to see the shared ecosystem

”

Volodymyr Nedbailo,
Deputy Head of the Novoorzhytske Community



Meeting of the supervisory board of ecoservice-2022

ECOSERVICE-2022: MORE THAN JUST A MUNICIPAL ENTERPRISE

On 19 May 2023, a landmark event took place in the town of Pyriatyn, Poltava Region — the official opening of the municipal enterprise “Ecoservice-2022.” This enterprise is designed to become a powerful instrument for addressing regional waste-management challenges.



The ceremony was far more than a formal opening. It became a platform for dialogue, sharing experience and strategic planning for the future waste-management system in the region.



Participation of high-level stakeholders underscored the importance of the initiative:

- Representatives of the Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV) (participated online)
- Representatives of the Ministry of Infrastructure (now the Ministry for Communities and Territories Development of Ukraine) and the Ministry of Environment (now the Ministry of Environmental Protection and Natural Resources of Ukraine)
- Representatives of the Poltava Regional Military Administration

A special part of the event was the presentation of the enterprise's corporate visual identity — a new branding concept designed according to modern trends and market requirements, reflecting the team's ambition to remain relevant and innovative.

The event went beyond presentations. Participants had the opportunity to:

- Discuss current waste-management issues
- Analyse the challenges the enterprise faced at the start
- Exchange views on sector development

The creation of Ecoservice-2022 became the physical embodiment of the cooperation model. But it is far more than just another municipal utility — it represents a fundamentally new approach to organising public services in the waste-management sector.



Participants during discussion

The mission of the enterprise is to build an efficient waste-management system through systematic operational, technical and service activities related to the collection, sorting, processing, recovery and disposal of municipal and other types of waste.

Its tasks also include mobilising investment from individuals, legal entities, municipal and state institutions to address waste-management issues, develop infrastructure, achieve social impact and generate revenue within the legal framework.

Key areas of activity include:

- Creating and developing a system for managing municipal and other non-hazardous waste
- Collection, sorting, transportation, recycling, recovery and disposal of waste
- Processing organic waste and producing by-products (compost, biogas, alternative fuels, etc.)
- Recovery of materials and secondary raw resources (metal, plastic, paper, glass)
- Implementing targeted programmes and providing consulting services for communities and enterprises
- Developing and implementing modern technologies for waste processing and disposal
- Supporting the extended producer responsibility (EPR) system
- Attracting investment and implementing joint projects with public and private partners
- Developing international cooperation in the field of waste management

The Programme for the Development and Support of Ecoservice-2022 for 2023, approved by the Pyriatyn City Council on 23 December 2022, became the roadmap for the enterprise's operations.

The Programme for the Development and Support of Ecoservice-2022 for 2025, approved on 20 December 2024, covers all four communities — Pyriatyn, Hrebinka, Novoorzhytske and Chornukhy — and aims to create an efficient waste-management system.

It provides for reducing the volume of waste sent to landfill, expanding infrastructure for sorting, recycling and reuse, and raising environmental awareness among residents.

Funding comes from the local budgets of the participating communities, with a total allocation of UAH 2,582,450.00. Expected results include installing new containers, expanding service coverage and reducing the volume of waste disposed of at landfills.

Thanks to the GlZ project “Support of the Export Initiative for Green Technologies,” Ecoservice-2022 received modern equipment, including:

- A 6,000-ton/year sorting line
- A three-axle waste collection truck with a 22 m³ body
- A specialised loader
- A vertical waste compactor
- Two trailers (8 m³ each)
- 972 containers of 1.1 m³ and 110 containers of 120 litres

This enabled the enterprise to begin operations on 1 June 2023 and quickly build momentum.



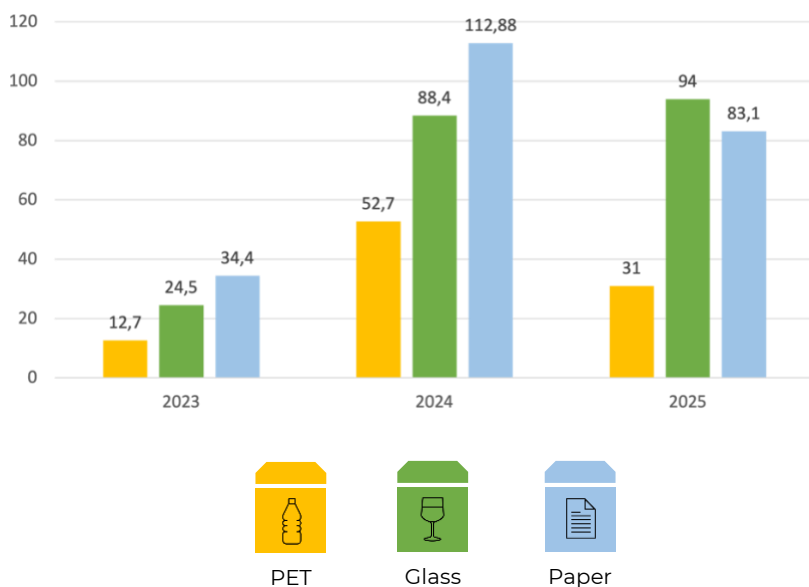
The introduction of the separate waste collection system was carried out in stages. The process was completed the fastest in the Chornukhy community (September 2023); in the Pyriatyn and Novoorzhytske communities, containers were fully installed by December 2023, and in the Hrebinka community — in early 2024. However, as of June 2025, container coverage reached only 23% of the required capacity (264,000 litres out of 1,155,000), indicating significant potential for further expansion.

The results achieved by Ecoservice-2022 demonstrate stable positive dynamics. In the first six months of 2023, the enterprise collected and sent for recycling 71.6 tonnes of secondary raw materials: 12.7 tonnes of plastics, 34.4 tonnes of paper and 24.5 tonnes of glass. Revenue from the sale of recyclables amounted to UAH 296,600.

In 2024, the enterprise demonstrated rapid growth: in the first quarter alone, 56.1 tonnes of waste were collected (78% of the total volume collected in all of 2023), and by the end of the year the total amount of collected materials reached 253.98 tonnes (52.7 t of plastics, 112.88 t of paper and 88.4 t of glass).

Revenue from the sale of recyclables increased more than sixfold — reaching UAH 1.95 million. This confirms the effectiveness of a systematic approach to separate waste collection.

By the third quarter of 2025, 208.1 tonnes of waste had already been collected: 31 tonnes of plastics, 83.1 tonnes of paper and 94 tonnes of glass. Revenue in the first quarter of 2025 alone amounted to UAH 582,600, indicating sustained high growth rates.



In 2024, Ecoservice-2022 increased the volume of collected recyclables by a factor of 3.5, and revenue from their sale — by almost 6.6 times compared to 2023. This demonstrates not only improved logistics and territorial coverage but also the effectiveness of secondary raw material markets. Current 2025 indicators confirm a stable positive trend

Today, Ecoservice-2022 serves 59 settlements, works with 82 business clients, and has installed 776 containers for separate waste collection.

A significant achievement has been the establishment of cooperation with recycling companies:

for paper waste — Poninkivska Paper and Cardboard Mill, Kokhavyn Paper Mill, Zhytomyr Cardboard Factory;

for glass — PJSC Vetropack;

for plastics — LLC Korsim-Trade and Ergopak.

At the same time, the network of commercial clients continued to grow — the enterprise signed 38 contracts with regional companies.

A notable example is the partnership with Smakom, one of the largest food producers in the Pyriatyn community. Before cooperating with Ecoservice-2022, the company disposed of its waste independently, delivering it directly to the landfill.

Since early 2024, thanks to the updated operational model, Ecoservice-2022 has been recovering over 80% of valuable recyclable materials from the company's waste stream, with less than 20% ending up in landfill.

Significant attention was given to staff development. Initially, the enterprise experienced high staff turnover — a common issue in the waste-management sector due to the low status of the profession, challenging working conditions and modest pay.

However, systematic training and improved working conditions helped stabilize the workforce and significantly increase productivity.

For example, the weight of a compressed paper bale increased from 200 kg to 320 kg, allowing up to 22 tonnes of material to be loaded into a single truck, thereby optimising logistics costs.

Financial analysis shows a gradual improvement in economic performance. In 2023, with a budget of UAH 1.97 million, expenses amounted to UAH 1.9 million, while revenue from recyclables reached UAH 296,700, resulting in an annual deficit of UAH 1.6 million (77% of the budget).

However, by the end of 2024, with an annual budget of UAH 2.87 million, the average monthly gap between expenses and revenues decreased to UAH 116,000, resulting in an annual deficit of only 30% of the budget.





For further development, several priority areas have been identified: obtaining a permit for waste-processing operations; reconstructing the Pyriatyn municipal landfill into a regional site serving all four communities; procuring additional equipment (a more powerful compactor, a PET-bottle perforator); optimising tariffs; and transitioning to a single service provider for all communities.

The success of the enterprise has been made possible through the coordinated work of community leadership. Quarterly meetings of cooperation partners allow for timely decision-making and strategic planning. The approved 2025 budget of UAH 2,582,450 reflects long-term support for the project from all participating communities.

The experience of the four communities of Poltava Region is a compelling demonstration that inter-municipal cooperation is an effective mechanism for addressing complex infrastructural challenges, enabling small communities to implement modern environmental solutions and improve residents' quality of life.

BEST PRACTICES AND INNOVATIONS

Development of Modern Infrastructure

The project enabled the implementation of several innovative waste-management solutions:

BEFORE



AFTER



1. Separate Waste Collection

Specialised three-colour container systems were installed:

- Yellow — for plastics and paper
- Green — for glass
- Black — for mixed waste

2. Sorting Line

A modern facility for processing separately collected waste was established, including:

- A sorting conveyor
- Compaction equipment
- Storage facilities



3. Logistics System

Specialised vehicles were procured for the collection and transportation of sorted waste



“

Our equipment allows us not only to collect waste, but also to prepare it for recycling, which significantly increases its value. Within the first months of operation, we have already sorted more than 80 tonnes of secondary raw materials: plastics, paper and glass

”

Oleksandr Kotenko,
Director of Ecoservice-2022

FEATURES OF THE SYSTEM ACROSS DIFFERENT COMMUNITIES

Each community within the subcluster has its own specific organisation of waste collection, but all are integrated into a unified system:

- **Chornukhy Community** became the regional leader in separate waste collection, having introduced the system even before the establishment of the joint enterprise. Today, separate collection covers 35% of the population.
- **Pyriatyn Community**, the largest by population, became the central hub for hosting the sorting line and the upgraded landfill.
- **Hrebinka and Novoorzhytske Communities** are actively developing their waste-collection systems, gradually transitioning from the bag-based method to container-based collection.

ECONOMIC SUSTAINABILITY OF THE PROJECT

A critical component of the success of establishing a municipal waste-management enterprise is the development of a business model that ensures not only environmental and social benefits, but also long-term financial stability and economic viability.

Financial and economic analysis of Ecoservice-2022 and its business plan confirms that the enterprise has the potential to achieve cost recovery and profitability, provided that business processes are properly organised.

KEY ELEMENTS OF AN ECONOMICALLY VIABLE BUSINESS MODEL FOR ECOSERVICE-2022

1. Diversification of Revenue Streams

Ensuring financial sustainability requires multiple income sources, including:

- Sale of sorted secondary raw materials (PET plastics, waste paper, cullet, polyethylene, scrap metal)
- Provision of waste collection and sorting services for households
- Contracts with commercial enterprises and organisations
- Potential compensation for reducing landfill disposal volumes

2. Optimisation of Operating Costs

As demonstrated by the financial projections in the business plan, controlling operating expenses is essential for achieving profitability.

Key cost-optimisation measures include:

- Rational use of energy resources (including minimising cost differences between warm and cold seasons)
- Optimisation of collection and transportation routes
- Efficient management of human resources
- Introduction of energy-efficient technologies and technical solutions

3. Scalability of the Business Model

The business plan envisages phased expansion of the enterprise's capacity and market coverage:

- Gradual increase in processing volumes from 15% to 85% of the potential market
- Possibility of expanding the service area by involving additional territorial communities
- Potential to introduce new services and expand the range of secondary raw materials

4. Investment Attractiveness

Indicators of economic efficiency demonstrate the project's strong investment potential:

- Net Present Value (NPV): UAH 9.55 million under the optimistic scenario
- Profitability Index (PI): 1.65
- Internal Rate of Return (IRR): 36.8%
- Payback Period: 6.07 years

5. Risk Resilience

Sensitivity analysis shows that the business model has a significant margin of stability:

- The project remains profitable even with a 40% decrease in cash flow
- Resilience to changes in discount rate up to 40%
- Financial stability margin of over 80% throughout the implementation period

SOCIO-ECONOMIC BENEFITS OF A SUSTAINABLE BUSINESS MODEL

A financially viable business model for Ecoservice-2022 ensures stability not only for the enterprise itself, but also generates a range of positive external effects:

- **Job creation** — the project requires hiring skilled specialists across multiple fields
- **Local economic development** — establishing closed-loop systems for secondary materials stimulates new production opportunities
- **Reduced pressure on local budgets** — a self-sustaining waste-management model decreases reliance on public funding
- **Economic benefits for residents** — an efficient system may contribute to more optimal tariffs in the long term
- **Attracting investment** — a successful model creates conditions for expansion and additional financing

Developing an economically viable business model is a fundamental prerequisite for the successful functioning of Ecoservice-2022.

Financial and economic calculations show that under both the baseline and optimistic scenarios, the enterprise will not only ensure the repayment of initial investments but also achieve profitability, while simultaneously fulfilling an essential environmental and social mission for the territorial communities.

It is important to note that the project's economic sustainability is achieved through a balanced combination of commercial objectives and public benefit — an optimal development model for municipal waste-management enterprises.

FROM THEORY TO PRACTICE: STUDY VISITS TO GERMANY

One of the key components of the project was the introduction of best European waste-management practices adapted to the Ukrainian context. Representatives of the communities and the management of Ecoservice-2022 undertook study visits to Germany to exchange experience and learn about effective waste-management models.

An important element of the local implementation work was the partnership between Bergischer Abfallwirtschaftsverband (BAV) and Ecoservice-2022 within the framework of the Municipal Companies Platform for Strengthening Municipal Partnerships Worldwide, funded by BMZ. This initiative complements the activities of the BMUV Environmental Protection Export Initiative, coordinated by GIZ.

COOPERATION WITH BERGISCHER ABFALLWIRTSCHAFTSVERBAND (BAV)

Particularly valuable has been the cooperation experience with the German municipal company Bergischer Abfallwirtschaftsverband (BAV), which specializes in waste management. Within this partnership, several important activities were implemented:

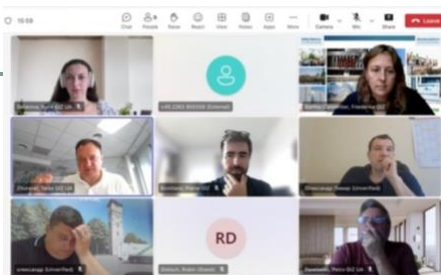
December 2023

an extended study visit of the Ukrainian delegation to Germany to familiarise themselves with leading German waste-management practices



2024 pik

a series of online webinars dedicated to landfill management, bio-waste, and the organisation of separate waste-collection systems



May 2024

participation of community representatives and Ecoservice-2022 in the IFAT 2024 international exhibition in Munich, Germany, including a presentation of project results



June 2025

participation of Ecoservice-2022 representatives in the Seventh German-Ukrainian Conference of Municipal Partnerships in Münster, Germany, showcasing the project's implementation experience



June 2025

a working visit of Ecoservice-2022 representatives to BAV and :metabolon within the framework of cooperation on bio-waste management



“

The German experience gave us an understanding not only of the technical aspects of waste management, but also of the organisational approaches to inter-municipal cooperation. We saw a system that has been developing for decades and selected the best practices to adapt to Ukrainian realities.

”

*Oleksandr Vasylenko,
Head of the Chornukhy Community*

WEBINARS AS A WINDOW INTO GERMAN EXPERIENCE

As part of the project activities and the cooperation between Bergischer Abfallwirtschaftsverband (BAV) and Ecoservice-2022, a series of webinars was conducted to exchange knowledge on landfill reclamation, modern waste-management practices, and bio-waste treatment.

The first webinar focused on landfill reconstruction, during which BAV representatives shared their expertise, while the Ukrainian side presented current plans for the reclamation of the landfill in Pyriatyn.

The second webinar addressed waste sorting and provided valuable knowledge and strategies for improving waste-management systems.

The third webinar concentrated on bio-waste treatment. BAV experts demonstrated their advanced methods and approaches, offering practical solutions for efficient bio-waste management.

“

The webinar series facilitated the exchange of practical experience and German know-how in green technologies. Participants had the opportunity to explore modern waste-management approaches in Germany, as well as present and discuss practical steps for implementing projects in the Poltava region

”

Taras Zhuravel
Project Manager in Ukraine



“

As the head of a waste-management enterprise, I was impressed by Germany's thorough and strategic approach to designing and implementing projects in this field. This applies both to landfill development and the introduction of separate waste-collection systems. We are confident that this invaluable experience will significantly support the further development of our joint enterprise Ecoservice-2022

”

Oleksandr Kotenko
Director of Ecoservice-2022

**STUDY VISIT: IMMERSION INTO THE GERMAN
WASTE-MANAGEMENT ECOSYSTEM**



Ukrainian delegation visiting German waste-management facilities

As part of the partnership with the Bergischer Abfallwirtschaftsverband (BAV) and the innovation hub :metabolon, a Ukrainian delegation undertook a five-day study visit to Germany.

The goal of the visit was to establish effective partnership links, specify the key areas of cooperation and develop a practical work plan for future collaboration.

Special attention during the study visit was devoted to exploring the daily organisation of waste collection, treatment processes and resource recovery.

In addition to theoretical sessions at the :metabolon innovation centre, the delegation gained hands-on experience at several sorting and processing plants in the Oberbergischer and Rheinisch-Bergischer districts of North Rhine–Westphalia.

At the Lobbe recycling plant, the group learned about the sorting and processing of packaging waste as part of Germany's Extended Producer Responsibility (EPR) system.

At the Leverkusen waste-to-energy plant, the company AVEA GmbH & Co KG demonstrated how non-recyclable municipal waste is thermally treated and converted into heat and electricity for the residents of Leverkusen. After incineration, metals contained in the ash are further sorted and recovered.

The knowledge and experience gained will be used to support the further development of Ukraine's waste-management system.

The Bergischer Abfallwirtschaftsverband (BAV) also presented its work in the field of public communication, emphasising the importance of informing citizens and encouraging proper separate waste collection.



Delegation at visited facilities

In May 2024, the Ukrainian delegation travelled to Munich to participate in IFAT, the world's leading trade fair for water, wastewater, waste and raw-materials management.

IFAT is the premier global exhibition in this sector, held every two years in Munich.

In 2024, it gathered about 3,200 exhibitors from 61 countries and more than 142,000 visitors.

This was not just a trip — it was a real mission for knowledge exchange and the search for innovative solutions for Ukrainian communities.

The delegation included deputy mayors and representatives of the Hrebinka, Novoorzhytske, Pyriatyn and Chornukhy communities, a representative of the Ministry for Communities, Territories and Infrastructure Development of Ukraine, and a representative of the Pyriatyn City Council.

The delegation was accompanied by the GIZ Ukraine team.



During the exhibition, delegates had the opportunity to meet with representatives of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection (BMUV), German companies and associations, including the German RETech Partnership, and to familiarise themselves with the processes and environmental technologies used in Germany..

“

I am extremely impressed by the scale and level of organisation of the exhibition. We face a serious challenge not only with municipal waste but also with organic waste. A huge amount of such waste — including branches and leaves — is generated during tree pruning, amounting to hundreds of tonnes. Their processing and composting is a priority issue for us.

That is why I was very pleased to see the technologies, equipment and modern approaches to handling and recycling them. I was also deeply impressed by the attitude of the leadership of German cities, partner organisations and the ministry towards the representatives of Ukrainian communities. They give us the opportunity to learn from their experience so that we can improve the lives of our communities thanks to these technologies and knowledge, and move closer to the standards of Germany and the EU

”

Volodymyr Nedbailo
Deputy Head of the Novoorzhytske Community

EXPERT FORUM: “UKRAINE — INTER-MUNICIPAL COOPERATION AS A KEY SUCCESS FACTOR IN WASTE MANAGEMENT”

A highlight of the Ukrainian delegation's participation at IFAT was the expert forum “Ukraine: Inter-Municipal Cooperation as a Key Success Factor in Waste Management.”

The forum focused on the knowledge gained and results achieved. Nilgün Parker, Head of Department at BMUKN, welcomed participants and emphasised:

“

In Poltava Region, four municipalities have joined forces, and we are pleased that the Environmental Protection Export Initiative was able to support them in this process. Successful inter-municipal cooperation is not something that happens automatically: it requires the right legal framework, adequate infrastructure, and—most importantly—people who work together based on trust

”

She also expressed admiration for the Ukrainian partners who continue their work on sustainable waste management despite extremely difficult circumstances.

“

Within our capabilities, the Environmental Protection Export Initiative will continue to support you in your successful work

”

Nilgün Parker

The Ukrainian delegation presented the results of inter-municipal cooperation in Poltava Region. Among the successful examples highlighted at the forum were the study visit to the innovation centre Metabolon in Engelskirchen

(North Rhine–Westphalia) in December 2023 and the series of online webinars conducted in spring 2024.



Meeting with representatives of the German Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

SEVENTH GERMAN-UKRAINIAN CONFERENCE OF MUNICIPAL PARTNERSHIPS

From 16 to 18 June 2025, the Seventh German-Ukrainian Conference of Municipal Partnerships took place at the Halle Münsterland Exhibition Centre in Münster, Germany, bringing together more than 300 participants from Ukraine and Germany.

One of the key programme elements was a practical workshop titled “Together We Can Achieve More: The Potential of Municipal Utilities in Partnerships.”

Within the session dedicated to the role of municipal utilities in international cooperation, Oleksandr Kotenko, Director of Ecoservice-2022, and Robin Dietsch, representative of the Bergischer Abfallwirtschaftsverband (BAV), presented the results of the partnership between Poltava Region and the federal state of North Rhine–Westphalia in the field of municipal solid-waste management.

During their joint presentation, they stressed that the cooperation between BAV and Ecoservice-2022 is a strong example of an effective “operator-to-operator partnership,” demonstrating how collaboration at the municipal utility level can deliver concrete outcomes.

The presentation showcased examples of technical knowledge exchange, joint infrastructure solutions, the alignment of the enterprise’s operational planning with EU standards, and communication campaigns aimed at raising public environmental awareness.



Representatives of BAV and Ecoservice-2022 speaking at the Seventh German-Ukrainian Conference of Municipal Partnerships

“

We believe that partnerships between municipal utilities are not just about sharing experience — they create a solid platform for adopting best practices, improving infrastructure, fostering environmental awareness and implementing modern management approaches

”

Oleksandr Kotenko and Robin Dietsch during their joint address at the conference

WORKING VISIT TO BAV AND :METABOLON WITHIN THE BIO-WASTE MANAGEMENT PARTNERSHIP

As part of the ongoing cooperation between the Bergischer Abfallwirtschaftsverband (BAV) and the municipal enterprise Ecoservice-2022, a working visit took place to BAV facilities and the educational and research centre :metabolon – Gardens of Technics.

The trip marked another important stage in the development of the German-Ukrainian partnership in the field of waste management. The main focus was on the exchange of practical experience in bio-waste management and on preparing for the launch of a joint pilot project on composting and collecting green waste in the Pyriatyn community of Poltava Region.

During the visit, BAV representatives introduced the Ukrainian delegation to existing technical solutions for composting. Participants were able to observe the entire operational cycle — from receiving and processing the organic fraction to converting it into high-quality compost. Special attention was paid to the logistics of green-waste collection, which functions efficiently in Germany.

The Ecoservice-2022 team presented its vision for implementing the pilot project in the Pyriatyn community, taking into account local conditions, existing infrastructure and community experience. Together with the German partners, the delegation discussed possibilities for adapting European solutions to the Ukrainian context — from selecting optimal equipment and logistical models to identifying suitable locations for establishing a composting site.



Delegation with BAV representatives



Delegation with BAV representatives

“

We aim to learn the best practices in bio-waste management to make the first pilot project as effective as possible within the Ukrainian context. The visit to BAV and :metabolon was extremely valuable — both practically and strategically

”

*Oleksandr Kotenko,
Director of Ecoservice-2022*

BAV'S COMMUNICATION STRATEGY

German partners place special emphasis on public outreach — informing and motivating residents to engage in conscious and responsible separate waste collection.

BAV's communication strategy is built on a clearly structured, multi-channel and community-oriented model. Public engagement is ensured through free consultations, educational programmes, practical demonstrations and ongoing dialogue with residents.

At the heart of BAV's communication strategy is not just an information campaign, but a genuine dialogue with the community. BAV specialists stress that change does not start with a waste bin — it starts with awareness. Every communication effort is therefore not simply a call to sort waste, but a step toward deeper understanding of personal responsibility for the environment.

Within specially established advisory services, residents can receive free guidance — by phone, email or in person. BAV consultants explain how to correctly handle different types of waste, how to prevent waste generation and what to do with organic materials that cannot be disposed of in standard containers. This support is continuous, accessible and open to anyone seeking simple, understandable solutions for everyday environmental practices. Children and young people occupy a special place within this strategy.

BAV organises educational programmes in schools and kindergartens, turning complex environmental topics into games, learning experiences and meaningful adventures. Children discover what “life after the landfill” can look like — through reuse, composting and sorting.

A key tool of this educational work is the :metabolon project — a true garden of technical innovation, where compost is

produced right before visitors' eyes. Here, anyone can observe how the German bio-waste processing system functions — from collecting green residues to producing high-quality compost. This is not a museum, but a living space for exchanging ideas, open to the public as well as international delegations.

Information materials, social campaigns, public events and cooperation with local municipalities all help BAV communicate with people in a language they understand.

“

Engagement is not coercion — it is an invitation to shared responsibility. Thanks to this thoughtful and consistent work, community trust grows, and with it — the level of waste sorting

”

note the specialists of BAV's public outreach department.





Ukrainian delegation during the visit to Germany



INFRASTRUCTURE DEVELOPMENT: MATERIAL FOUNDATIONS OF THE PROJECT

The waste-management system established in Poltava Region was far more than the purchase of equipment or installation of containers. It represents a comprehensive infrastructural concept, combining strategic planning, investment, adaptation of European best practices and a deep understanding of local realities.

At every stage of implementation, the project was built on the idea of creating a full waste-management cycle — from collection and sorting to organic-waste processing and material recovery.

Every element of the system — containers, specialised vehicles, sorting lines, composting equipment — was designed not as a separate component, but as part of a unified functional ecosystem.

Significant investments were directed not only toward physical infrastructure, but also toward ensuring conditions for sustainable operation: efficient logistics, technical support, adaptation to the needs of cities and rural areas, and preparation for future system scaling.

This approach enabled not only improvements in waste management, but also laid the foundation for long-term change already felt by residents.

Infrastructure Investments

Implementation of the project required substantial investment in establishing the necessary infrastructure:

1. Waste Collection

- 410 containers for urban centres (1.1 m³)
- 1,919 containers for rural areas (1.1 m³)
- 10 specialised waste collection trucks (16 m³)
- Total investment: approx. UAH 79 million

2. Sorting Line

- Design capacity: up to 2,000 tonnes/year
- Capable of processing both separately collected dry recyclables and mixed waste
- Equipped with a magnetic separator, screen, shredder and manual sorting station
- Investment: approx. UAH 70.4 million

3. Green-Waste Composting

- Windrow composting system
- Targeted at processing green waste from parks and private households
- Investment: approx. UAH 11.8 million

4. Equipment

- MAN waste collection truck
- Telescopic loader
- Mobile sorting line
- Vertical baling press
- Two tractor trailers
- Vehicle weighing scales
- GPS tracking system
- Four branch shredders
- Platform scales
- Car wash
- Air compressor

Stages of Technical Implementation

Infrastructure development was carried out in stages:

- 2023** ● launch of operations following the signing of the inter-municipal cooperation agreement between the Pyriatyn, Hrebinka, Novoorzhytske and Chornukhy communities in November 2022. Key steps included the purchase and installation of approximately 470 containers, establishment of 150–170 separate collection sites, procurement of waste collection vehicles, loaders, a mobile sorting line and related equipment. A mobile sorting line with a capacity of up to 2,000 tonnes per year, equipped with a magnetic separator, screen, shredder and manual sorting station, was commissioned.
- 2024-2025** ● launch of a large-scale public awareness campaign: training sessions, promotion of separate collection, and community outreach activities aimed at increasing participation in sorting. Training was provided to Ecoservice-2022 personnel to strengthen operational capacity. Logistical and operational processes of the enterprise were improved, and additional equipment was acquired, including a 10 m³ waste collection vehicle and vehicle weighing scales.
- 2025-2026** ● preparation and launch of a bio-waste collection and composting pilot project in the Pyriatyn community. Tasks include adapting BAV's German models to the Ukrainian context, finalising the arrangement of composting windrows, and designing logistics and operational routes.

COMMUNICATION STRATEGY AND AWARENESS RAISING

Despite clear successes, the enterprise's staff face daily challenges. Limited visibility in the information space of the partner communities, communication efforts focused mainly on the Pyriatyn community, and weak cooperation with the media are issues requiring attention.

“

There is a common feature of Ukrainian society: where information is lacking, people tend to fill the gaps — and most often these assumptions are negative

”

Nadiia Velychko

Crisis Communication and PR Advisor at the NGO KISAR, who together with Strategic Planning Expert Olena Kozliuk is conducting an analysis of the enterprise's communication function

Within the framework of the Environmental Protection Worldwide project, the KISAR team developed a communication strategy, a business video and a video contest for Ecoservice-2022 — tools that became an integral part of the enterprise's renewed communication efforts.



Meeting of community representatives, GIZ project team and Ecoservice-2022 management

“

Our task is not only to collect sorted waste, but to change the culture of waste management across the region. We can already see how people's attitudes are gradually shifting. It's a long journey, but we are moving in the right direction

”

*Oleksandr Kotenko,
Director of Ecoservice-2022*

Developing an effective communication strategy will be the next significant step in the enterprise's growth. It will make it possible not only to improve public awareness, but also to ensure a fair distribution of “image dividends” among all founding communities.

Based on an in-depth analysis of the activities and communication function of Ecoservice-2022, a strong dual communication toolkit was developed: a communication strategy and a brand book.

These complementary documents form a strong foundation for effective communication with all target audiences and for shaping a positive public image of the enterprise.

The communication strategy for Ecoservice-2022 was developed with consideration of the specifics of inter-municipal cooperation among the four communities of Poltava Region and the particularities of the waste-management sector.

It aims to address the identified challenges, including:

- Lack of information about the enterprise in the public information space of three out of the four founding communities

- Communication efforts concentrated primarily on the Pyriatyn community
- Weak cooperation with the media
- Insufficient presence in the digital environment

The strategy proposes a comprehensive communication approach tailored to different target audiences:

- **Local authorities and community councils (B2G)** — communication focused on presenting Ecoservice-2022 as a successful model of inter-municipal cooperation and implementation of European waste-management standards
- **Businesses (B2B)** — messages highlighting social and environmental responsibility and the economic benefits of separate waste collection
- **Residents (B2C)** — accessible information on the importance of waste sorting and on how individuals can contribute to environmental protection

A key element of the strategy is expanding Ecoservice-2022's presence across all four founding communities, ensuring a fair distribution of "image dividends" among partners, and strengthening cooperation with the media.

BRANDING AND VISUAL IDENTITY

Alongside the communication strategy, a comprehensive brand book for Ecoservice-2022 was developed, visually reflecting the enterprise's values and identity.

Special attention was given to educational and informational materials — including the design of information boards for

collection and sorting sites, as well as container labels that clearly explain waste-sorting rules in an accessible format.

The brand book also includes designs for branded promotional materials — eco-bags and eco-friendly pens that emphasise environmental values and support the visibility of Ecoservice-2022.



The combined use of the newly developed communication strategy and brand book will enable Ecoservice-2022 to systematically build a positive public image, communicate effectively with all target audiences, and successfully fulfil its environmental mission across all four founding communities.

EDUCATIONAL AND AWARENESS INITIATIVES

“

Every major transformation begins with a small step — with a shift in awareness. When people realise that their daily actions matter, real change begins. Children absorb new values sincerely, learn faster, feel deeper and spread knowledge within their families, schools and communities. By shaping their thinking today, we build a culture of responsibility for tomorrow. That is why much of our behavioural and educational work starts with children

”

Iryna Skliarova
Project Advisor





School tour of the enterprise

School tours, environmental campaigns and competitions represent only part of the educational and awareness-raising work carried out by Ecoservice-2022.

One of the most successful areas has been the information and outreach component.

During the 2024–2025 school year, more than 70 guided tours of the enterprise were organised for schoolchildren and community representatives.

During these visits, children not only listen to engaging educational lectures but also witness the waste-sorting process firsthand — from collecting waste from specialised containers installed in urban and rural areas to baling and preparing recyclables for transportation to processing facilities.

Each student visiting the enterprise can actively participate in this important process. Most children arrive with bags of waste they collected themselves and sort them into the appropriate containers, becoming active participants in the environmental movement.

A particularly successful initiative was the “Dream and Act” campaign, during which students in the Pyriatyn community collected around 27,000 plastic bottles with a total weight of 958 kilograms.

The winner was the Smotrykivka branch of the Teplivka Secondary School, whose students collected 103 kg of plastic — more than 1.6 kg per student.

In spring 2024, a similar competition in the Hrebinka community brought together 2,166 children, who collected 788 kg of plastic.



Public awareness was strengthened through a variety of channels:

1. Work with schools:

- Environmental education programmes (guided tours of the enterprise)
- Recycling competitions among educational institutions
- Environmental video contests

2. Social media campaigns:

- Regular posts featuring infographics on proper waste sorting
- Publication of the enterprise's performance results
- Responses to frequently asked questions from resident

3. Information materials:

- Development of a children's comic book
- Creation of animated videos
- Production of informational leaflets and a display stand

ENVIRONMENTAL HEROES OF PYRIATYN: HOW CHARACTERS BRING ECO-AWARENESS TO LIFE

As part of the environmental project in the Pyriatyn community, a series of bright educational materials was created — a comic book, animated videos, and informational leaflets. These materials explain the importance of responsible waste management in an engaging and accessible way. Their characters are relatable and familiar, allowing everyone — from children to adults — to recognise themselves in these stories.



Zoriana
optimism and creativity

13-year-old Zoriana, a girl with long chestnut hair and expressive eyes, embodies boundless optimism and creativity. She believes in people's kindness and strives to spread positive energy around her.



Tsvitan
a curious sceptic

12-year-old Tsvitan, Zoriana's younger brother, represents critical and inquisitive youth. With his tousled brown hair and signature cap, he questions traditional ideas and seeks his own way of understanding the world.



Grandpa Antyp
the wisdom of generations

60-year-old Antyp is an elderly man with grey hair and beard, dressed in simple, worn clothing and an old cap. He personifies traditional values and conservative views that gradually evolve under the influence of new knowledge.



Chugaistic
folklore reimagined

The most unusual character, Chugaistic, is a creature made entirely of recycled materials, particularly plastic. Its name is inspired by the Ukrainian mythological "Chugaister," enriched with an ecological twist — emphasising modern transformation and environmental purpose.



The comic book became more than an entertaining tool — it turned into a full-fledged educational instrument that combines visual appeal with meaningful ecological messages. Studies show that comic formats are among the most effective tools for shaping new habits, especially among young audiences:

- Emotional connection: through the characters, readers emotionally relate to environmental issues, perceiving them not as abstract concepts but as personal stories.
- Accessibility of complex concepts: recycling, composting, and waste reduction are presented through familiar everyday situations.
- Encouraging critical thinking: the stories stimulate readers to reflect on their own habits and beliefs regarding waste management.

Creating this character system for CE “Ecoservice-2022” goes far beyond a traditional information campaign.

Zoriana, Tsvitan, Grandpa Antyp, and Chugaistic have become true cultural ambassadors of environmental awareness in the partner communities. Through their stories and personal transformations, residents receive not only knowledge about waste sorting but also an emotional motive to change their habits.

This innovative communication model demonstrates how the combination of traditional Ukrainian culture (folklore elements, local names, recognisable locations) with modern formats (comics, animation) can significantly influence the development of a new environmental culture.



Most importantly, the project does not simply inform — it shapes a new mindset, both for the characters and for the audience. It shows that building environmental awareness is a personal journey for everyone — a journey that can be not only conscious but truly inspiring.



INFORMATION CAMPAIGNS: A COMPREHENSIVE APPROACH TO ENVIRONMENTAL EDUCATION

The environmental awareness initiative in the Pyriatyn community included not only the creation of comic books and animated videos, but also a series of large-scale information events that helped deliver key environmental messages to a wide audience. These activities became an essential component of the overall strategy to raise public awareness about waste management.

Eco-festivals as a Platform for Environmental Education



One of the most effective formats of the awareness-raising activities were eco-festivals held across the partner communities. They were organised by the NGO Social Project “Ekoltava” within the project “Raising Awareness in the Sphere of Municipal Solid Waste Management”, implemented with financial support from the GIZ project “Export Initiative for Green Technologies”.

The eco-festivals brought together around 2,000 participants from the partner communities. Notably, about half of all participants were children, who will eventually shape the culture of responsible consumption and waste management in their families, schools, and communities. This ensures long-term sustainability of the project’s impact.

Innovative Technologies in Environmental Education: A 3D Tour of the Landfill



A particularly innovative element of the information campaign was the 3D tour of the Poltava Municipal Solid Waste Landfill, developed by the partner organisation NGO UCEP (Ukrainian Centre for European Policy).

Background and Need

- Based on the project team's experience working on waste-management projects since 2018, several challenges were identified:
- Landfills are closed to visitors due to safety regulations, and obtaining permission takes time.
- Landfills are usually located outside cities, making them difficult to access without transport.
- Visiting landfills often triggers negative emotions due to odour and awareness of environmental impacts.

These observations motivated the team to create a new, engaging solution — adding a gamified, immersive element to landfill visits.

Technical Implementation

The 3D tour was developed in close cooperation between NGO UCEP and NGO “Peredova Ukraina” (Khmelnyskyi). The project team created the concept, while the technical implementation was carried out by specialists from “Peredova Ukraina”.

The Poltava municipal landfill became the first landfill in Ukraine to be recreated in a full 3D format.

Structure and Content

The 3D tour consists of 33 aerial and ground panoramas of the landfill in the village of Makukhivka (Poltava Oblast):

- 19 panoramas with brief descriptions, statistics and site data
- 19 panoramas of the main guided tour with audio narration (8 aerial, 11 ground)
- 4 geographic locations: the landfill (30 panoramas), Poltava (1 aerial panorama), Makukhivka village (1 aerial), and Lisok neighbourhood (1 aerial)

The tour is designed so that each user can choose where to begin and which panoramas to explore.

Presentation and Outreach

The 3D tour was presented in five hromadas of Poltava Oblast: Hrebinka, Pyriatyn, Chornukhy, Novooryzhytske, and Lubny. Presentations were held during eco-festivals. Each presentation lasted four hours. Around 350 people at each festival experienced the 3D tour using six VR headsets.

Local journalists covered the initiative in regional media to extend visibility beyond the event audience.



Media Support and Further Dissemination

To maximise outreach, various media channels were used:

- Publications in online media (e.g., the “Poltavshchyna” online platform)
- Presentations on local TV and radio
- Active coverage on organisers’ Facebook pages
- Presentation at the “Social Partnership” forum

Planned Expansion of Activities

Several further actions were planned to broaden the reach of the 3D tour:

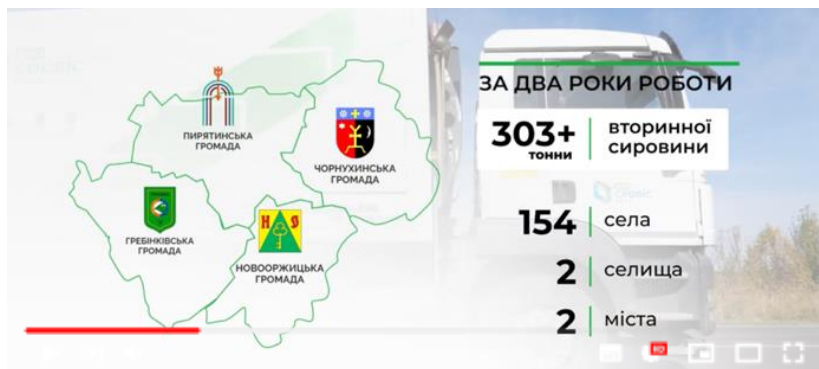
- Presentation during the “City Workshop” festival in Poltava for activists, journalists, and residents
- Negotiations with local authorities, partner NGOs and media to place the 3D tour on their websites

Video Communication as a Tool for Community Engagement

At the heart of the communication strategy of the Municipal Enterprise Ecoservice-2022 are people. Through simple stories, dialogues and play-based approaches, the enterprise brings complex topics such as waste sorting, responsible waste behaviour and environmental stewardship closer to residents — in ways that are engaging, understandable and inspiring.

To disseminate educational and practical information, and to highlight the results of regular video contests, a dedicated YouTube channel — @DIY4Ecos — was created.

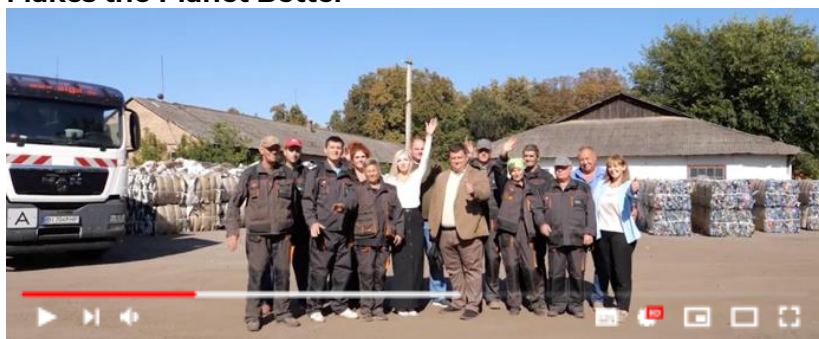
Video: “A Day in the Life of a Garbage Truck”



This image-building video tells a story from an unexpected perspective — through the eyes of a garbage truck. It moves through the streets of Poltava communities, collecting tonnes of sorted recyclables, covering dozens of kilometres, silently performing its environmental mission.

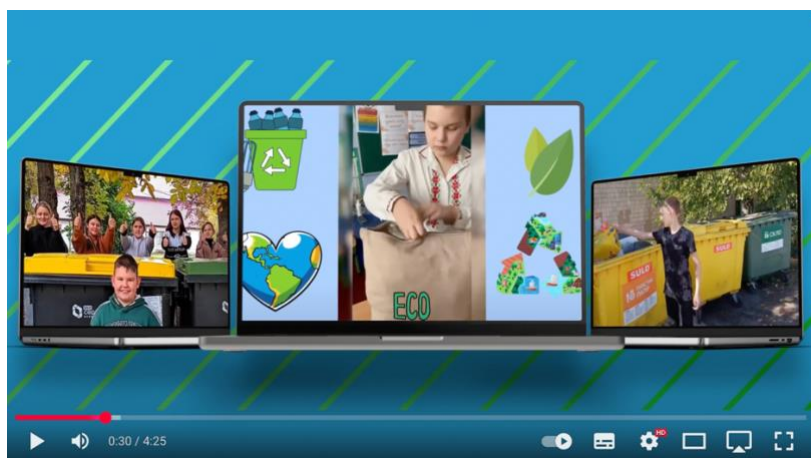
Through this character, the video conveys a key message: everyday actions matter. The camera shows the collection process, the volumes of materials saved from disposal, and the atmosphere of real change that is already happening.

Business Video: “Ecoservice-2022 — A Company that Makes the Planet Better ”



Another video is aimed specifically at local businesses. It offers entrepreneurs a clear answer to a complex question: how to combine efficiency, responsibility and compliance with environmental legislation. Ecoservice-2022 demonstrates that sorting is not a burden but an effective tool for sustainable development. Businesses receive more than just a service — they receive a partnership: transparent conditions, clear schedules and an opportunity to contribute to the environmental wellbeing of their community.

Video Contest “Life Changes — and So Do We!”



As part of its information campaign, the enterprise launched a video contest among school students. Participants from all target communities submitted short videos on waste sorting, recycling, environmental impact and individual responsibility.

Their works were filled with sincerity, humour, creativity and surprisingly deep reflections on environmental challenges. The expert jury selected the winners, evaluating both content and presentation.

The contest concluded not only online. In June 2025, festive events dedicated to World Environment Day were held in all four communities — Novooryzhytske, Hrebinka, Pyriatyn and Chornukhy — where the winners were honoured.

These events combined multiple levels of engagement:

- Award ceremonies with gifts and diplomas recognising each participant's contribution to environmental education
- Educational and play-based activities facilitated by trainers from the NGO Zaporizhzhia Without Waste — themed relay games, board games, riddles and mini-competitions that helped children understand correct waste behaviour, composting and the value of recyclable materials
- The presence of Chuhaystyk, the project's fictional mascot created specifically for Ecoservice-2022 branding, who helped communicate complex environmental topics in a fun, friendly way

These events were more than celebrations — they offered children a meaningful experience: they were heard, applauded, and their ideas inspired others. Parents, teachers and local authorities joined in creating a shared environment where change begins with play, honest conversation and small daily choices.



Youth as Drivers of Change

In July 2025, at the KOLOmolodi youth space in Pyriatyn, Ecoservice-2022 and the Pyriatyn National Nature Park organised an interactive environmental event for university students, focusing on the impact of household waste on the environment.

Participants included students from Taras Shevchenko National University of Kyiv and the European University, who were completing an internship at the Kaniv Nature Reserve and conducting stork monitoring in the Pyriatyn National Park. The youth presented a short documentary and a multimedia presentation based on field observations — focusing on stories of animals harmed by pollution and the urgent need for change in waste behaviour.

A specialist from Ecoservice-2022 presented the enterprise's practical work:

- how the waste sorting system functions at the community level
- how green waste is composted
- how residents are encouraged to adopt daily environmental practices

Particular attention was given to the role of the municipal enterprise as a local change agent in the waste-management sector.

After the presentations, participants joined a World Café session — an open-group discussion format. Thematic tables explored questions such as:

- what each person can do today to support sorting

- how communities can strengthen enforcement of sorting rules
- the roles of businesses, education institutions and local authorities in building environmental culture

The format helped break down barriers between students, eco-activists, local officials and experts, creating an atmosphere of open dialogue and collective thinking.

An informational stand on waste sorting and Ecoservice-2022 operations was also presented. It now serves as a mobile tool for events across communities, helping spread environmental knowledge and engage broader audiences.

Conclusions: Innovative Approaches for a Sustainable Future

The information activities implemented within the project have demonstrated how innovative approaches to environmental education can effectively engage different segments of the population. Combining traditional formats (festivals, information materials) with modern technologies (3D tours, VR headsets, social media) has created a powerful tool for changing public awareness and behaviour in the field of waste management.

It is particularly important that these activities focused not only on providing information, but also on motivating and actively involving the public in solving environmental challenges.

The use of positive incentives, gamification elements and modern technologies has set a new direction for much-needed reforms in the waste-management sector.

The strategy of the Municipal Enterprise Ecoservice-2022 is not only about technologies — it is, above all, about people, ideas and stories. Communication through videos, contests,

educational activities and active youth engagement is creating an environment in which environmental responsibility becomes part of local culture. In partnership with communities and international organisations, the enterprise is not just collecting waste — it is building and strengthening trust that shapes the future.





PROJECT RESULTS IN FIGURES

Although the project is still in an early stage of development, it has already delivered tangible results:



Operational indicators

70+ tonnes

of sorted recyclables in the first months of operation

425 tonnes

of sorted recyclables over 24 months

170+ equipped

sites for separate waste collection

4500+ households

covered by the separate collection system

59 settlements

with access to separate waste collection services



Environmental indicators

1% reduction in the volume of waste sent to landfill

Reduction of the number of illegal dumpsites **by 22**

350+ kg of hazardous waste (batteries) collected and sent for safe treatment



Socio-economic indicators

12 jobs created at the sorting line and in logistics

Over **UAH 2,800,000** in additional income for communities from the sale of recyclables

75%+ of residents satisfied with the quality of waste collection services

RECIPE FOR SUCCESS: INGREDIENTS AND PROPORTIONS

What made this project successful under conditions of limited resources and multiple challenges? The answer lies in a combination of several key components:

1. Political Will and Leadership

Without the determination of local leaders and their willingness to move beyond the traditional “my community only” mindset, the project would not have had a chance to succeed. The leaders of the four communities demonstrated strategic thinking and a readiness to cooperate for the common good.

2. Expert Support from International Partners

The Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection of Germany (BMUV), the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH and the Bergischer Abfallwirtschaftsverband (BAV) provided not only financial support, but also invaluable technical expertise that helped communities avoid common mistakes.

3. Transparency and Public Engagement

All key decisions were made with active public involvement through open consultations, public hearings and information campaigns. This ensured public trust in the project and encouraged residents to participate in new initiatives.

4. Clear Legal Framework

A carefully drafted inter-municipal cooperation agreement and the statute of Ecoservice-2022 clearly defined the rights, obligations and responsibilities of each community, minimising the risk of conflicts and misunderstandings.

5. Phased Approach

The project was implemented step by step, starting with simpler initiatives and gradually moving to more complex ones. This allowed communities to adapt to the changes and see early results, which in turn motivated further action.

“

If I had to name one key factor of success, I would say it is synergy. When resources, knowledge and enthusiasm of different stakeholders come together, the result always exceeds the sum of individual efforts

”

*Taras Zhuravel
Project Manager in Ukraine*

LOOKING AHEAD: SUSTAINABILITY AND FURTHER DEVELOPMENT OF THE INITIATIVE

Development Plans up to 2030

The development strategy of Ecoservice-2022 includes:

1. Expanding infrastructure

- Increasing separate collection coverage to 90% of the population
- Developing a new site that will include both composting facilities and a sorting centre
- Establishing a system for the collection and composting of food waste

2. Diversifying activities

- Introducing systems for the collection of green and organic waste
- Developing services for the management of hazardous waste
- Establishing reuse centres for items suitable for a second life

3. Strengthening financial sustainability

- Optimising logistics routes
- Increasing revenues from the sale of high-quality sorted recyclables

“

Our vision is to create a closed-loop waste-management system in the subregion, where the maximum amount of resources is returned to the economy and only a minimal share of waste ends up in landfill

”

*Oleksandr Kotenko
Director of Ecoservice-2022*

POTENTIAL FOR SCALING UP

The experience of the four communities in Poltava Oblast has strong potential for replication in other regions of Ukraine. Key elements that can be adapted include:

- A model of inter-municipal cooperation with a clear distribution of responsibilities
- Technical solutions for separate collection and sorting
- Approaches to public awareness and education

LESSONS FOR OTHER COMMUNITIES

The experience of the Pyriatyn subcluster offers valuable lessons for other regions facing similar challenges:

1. Inter-municipal cooperation is not a luxury, but a necessity

For small and medium-sized communities, cooperation in the waste-management sector is critical. Pooling resources makes it possible to benefit from economies of scale and implement solutions that would be unattainable for individual municipalities.

2. Start with a thorough analysis

Detailed assessments of waste composition, existing infrastructure and community needs are essential for designing realistic and effective plans.

3. Engage the public from the very beginning

Transparency and active communication with residents are key to building support and changing behaviour.

4. Seek expert support

Use opportunities created by international technical cooperation, expert consultancy and peer learning with other communities.

5. Think strategically, act tactically

Develop a long-term vision for the waste-management system, while implementing changes step by step, starting with the most urgent and feasible measures.

CONCLUSIONS AND RECOMMENDATIONS

Recommendations for Other Communities

Based on the experience of the Pyriatyn subcluster, the following recommendations can be given to other Ukrainian communities:

- 1. Start from needs and capacity assessment:**
 - Conduct public opinion surveys
 - Identify key waste-management problems
 - Assess available resources and potential funding sources
- 2. Formalise cooperation:**
 - Prepare a detailed roadmap
 - Conclude a legally robust cooperation agreement
 - Define a clear decision-making mechanism
- 3. Invest in awareness-raising:**
 - Develop a communication strategy before rolling out technical solutions
 - Actively engage schools and young people
 - Use modern communication channels
- 4. Implement technical solutions adapted to local conditions:**
 - Tailor container types and logistics to settlement specifics
 - Start with profitable fractions (plastics, paper)
 - Gradually expand the range of services
- 5. Ensure process sustainability:**
 - Develop a realistic business model
 - Establish stable partnerships with recycling companies
 - Regularly review and adjust the tariff policy

“

Inter-municipal cooperation is not just a way to optimise costs; it is an opportunity to implement ambitious projects that would be impossible for individual communities. Our experience proves that together we can truly achieve more

”

Andriy Simonov
Head of Pyriatyn Community



The inter-municipal cooperation experience of the Pyriatyn subcluster communities shows how, through joint efforts, political will and international support, it is possible to build an effective waste-management system even under constrained resources. This example should serve both as inspiration and as a practical guide for other Ukrainian communities on their path towards sustainable development and environmental security.

2025

